Comments of ACE Cogeneration and Rio Bravo
On The July 25, 2011 Revisions To The Cap-and-trade Regulation

ACE Cogeneration ("ACE") and Rio Bravo offer the following comments on the California Air Resources Board ("CARB") July 25, 2011 *Notice of Availability of Modified Text for the Proposed California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, Including Compliance Offset Protocols* ("cap-and-trade"). ACE and Rio Bravo's primary concerns are: (1) the significant shortcomings with respect to how the revised regulations provide transition assistance to existing Combined Heat and Power ("CHP") facilities, particularly those employing solid fuels; (2) how the allowances are calculated for industrial assistance; and (3) the new direction in which the Energy Efficiency and Co-benefits Audit Regulation appears to be heading.

ACE Cogeneration and Rio Bravo's Poso and Jasmin plants are combined heat and power ("CHP") facilities that sell electricity under PURPA contracts as well as supplying thermal energy to industrial processes that will receive free allocation under Section 95891. ACE's Power Purchase Agreement ("PPA") and its steam agreement both run until 2015. The Rio Bravo plants have PPAs that extend to 2020. None of the plants have contract provisions that provide for recovery of the cap-and-trade compliance costs. In addition there are no change-in-law provisions that will drive renegotiation of the PPAs or steam agreement. In sum, the plants will be subject to significant cap-and-trade compliance obligation costs that cannot be recovered. ACE and Rio Bravo are concerned that if that the cap-and-trade regulation does not provide a clear path of transitional assistance for these facilities, the facilities will not remain economically viable and will be unable to complete transitions from their current fuels to a lower carbon intensive fuel or carbon-neutral biomass.

ACE and Rio Bravo's specific comments are as follows:

1. CARB's Proposed GHG Regulations and Policies Conflict with Previously Implemented Policies Favoring Plants like ACE and the Rio Bravo Plants.

ACE and Rio Bravo's Poso and Jasmin plants operate under long term Qualifying Facility (QF) contracts executed over twenty years ago, and have provided certain and fixed electricity costs to the Investor-Owned Utilities ("IOUs") and associated steam costs to steam hosts under these contracts. The contracts also assure a certain and known revenue stream to the independent power producers which supported the original construction and operation of these facilities, furthering California's environmental and public policy goals first adopted in the 1980s. ACE and Rio Bravo Poso and Jasmin plants are solid fuel CHP facilities that employ advanced fluidized bed combustion systems which were designed to demonstrate the feasibility of these then-new, efficient, and low emissions technologies to meet California's strict environmental requirements. The new cap-and-trade regulations, being developed in furtherance of present-day environmental goals, should not be structured so as to undermine those existing contracts encouraged by prior state policy and environmental goals, because doing so will increase the already high level of uncertainty in the California energy markets and reduce incentives for new investment precisely at the time it is needed most. Even more importantly, the current form of the cap-and-trade regulations will potentially foreclose cost-effective

modifications to these facilities that will preserve their efficient operation to the benefit of California's energy consumers and steam to the industrial hosts.

2. The Industrial Assistance Afforded To Various Industrial Sectors Does Not Adequately Provide For CHP/QFs That Provide Steam Support To The Industrial Operations.

The industrial assistance provided for in the cap-and-trade regulations is intended to provide transitional assistance to specific industrial sectors to ensure that they have sufficient time to implement the changes necessary to lower their carbon emissions over time so that they are not forced to leave the state or shut down. However, for those manufacturers who have contracts with CHP/QF owners that provide steam for their industrial operations, the product-based allocation does not fully cover the emissions associated with the production of either the industrial facility or the CHP/QF.[1] As a result, in situations where the owner of the industrial facility is different than the owner of the CHP/QF facility, the industrial facility has an incentive to retain all of the allowances issued to it to address its own compliance needs, without regard to the compliance needs of the CHP/QF facility that provides a portion of its steam. If CARB does not provide a mechanism for the transfer of allowances to the CHP/QF owner who provides steam to the industrial facility to address the new compliance burden, renegotiation of existing steam agreements is unlikely.

To date, it has been ACE's experience that its steam host is unwilling to negotiate modifications to the steam contract that would provide compensation for the additional costs incurred by the CHP/QF facility to purchase allowances. Without a means to recover the new compliance costs, the CHP/QF owners face unsustainable economic operation costs and could shut down. This, in turn, can result in the industrial facility utilizing less efficient, older, higher emitting stand-alone boilers in a non-CHP configuration to replace steam supply or back-up steam previously provided by the CHP/QF, and thereby effectively undermining the State's expressed interest of encouraging increased use of CHP in industrial applications.

In short, the CARB staff's expectation that CHP/QF owners will be able to negotiate contract modifications with the industrial host that would allow the CHP/QF owner to share the allowances allocated to the industrial host to cover the steam production used by the host is unrealistic. By allocating all of the of industrial assistance allowances directly to the industrial host, coupled with the fact that the allocations to the manufacturer may not cover all of the emissions for the industrial operations—let alone the CHP/QF operations—the industrial hosts have little incentive to negotiate with their CHP/QF steam providers, especially in these difficult economic times. In the specific case of ACE's facility, the thermal energy component of the industrial assistance allocation may not include emissions related to ACE's operations as the source of immediate back-up thermal energy.[2] Both ACE and its industrial host are located in Trona, California; due to the geographically-unique nature of the industrial activity, at present,

[1] Although CARB staff have informed us that, in fact, ACE's steam host is receiving transition assistance and allocations sufficient to fully cover the host's allowance obligations, we have not had sufficient time to independently confirm this conclusion. If it is true, it still leaves ACE in the position of having to supply steam, and incur compliance obligations, while its customer receives the corresponding allowance allocations.

[2] At present, we have been unable to confirm that the carbon intensity of ACE's steam host's production includes the emissions associated with steam provided by ACE.

the only economically viable fuel source for the quantity of energy required is solid fuel delivered by rail. The industrial host will receive free allocations based on the energy intensity of its product output, but given the emissions intensity of its process and the potential omission of emissions related to ACE's operation in support of that process, there will not be sufficient allowances available to cover thermal energy sold from ACE. Moreover ACE's GHG compliance costs cannot be passed through under the current thermal agreement. Thus, at this time, renegotiation has not been successful with respect to ACE's agreement with its industrial host.

There are two remedies that CARB should implement to deal with these problems. First, as a matter of principle, CARB should allocate industrial assistance allowances directly to the CHP/QF facility, separate and apart from the allocation to the steam host. Second, the allocation of allowances to both the steam host and the CHP owner should be calculated based on the fuel that is actually used at the facilities in support of the industrial processes, rather than relying upon a benchmark fuel and efficiency factors that are neither available to nor attainable at the facilities. We were not able to discern from the Appendix B materials whether the facility supported by ACE was subject to an averaged value or represents a best-of-class calculation.[3] Furthermore, to the extent the benchmark reflects a 10% reduction "off-the-top", and hence a reduction to allowances to be allocated, this will compound the negative impact on the steam hosts. In short, there is no reason to impose a debilitating compliance costs on these facilities in the early years of the cap-and-trade program by applying a reduced benchmark to the allowance allocation, especially where this approach is likely to result in CHP/QF facilities shutting down. Instead, particularly for solid-fueled facilities, a transitional pathway should be established that will support cost-effective emission reduction investments through fuel changes that will achieve the desired emission reduction levels by 2020. Providing such a path will be critical to avoid an economically untenable burden on facilities at the beginning of the compliance program.

The Rio Bravo Poso and Jasmin plants face a separate but related concern with respect to their steam agreements. For both facilities, Rio Bravo owns the oil fields and the QF/CHP facilities. However, Rio Bravo leases operation of the oil field to a third party operator, and it is this third party operator that is listed on the oil and gas permits. To ensure that the entity that actually faces a GHG compliance obligation (Rio Bravo) receives industrial assistance for the oil produced, CARB should clarify Section 95852(h) so that the Operator not only includes the entity that is listed on the oil and gas permit, but the entity that owns the oilfield.

3. The Issues With Respect To "Locked-In Contracts" With The IOUs Require Additional Attention In The Regulations.

As noted above, both ACE and Rio Bravo's plants sell power to the IOUs under existing PURPA contracts. At the July 15th Workshop, several parties noted that existing contracts between the IOUs and cogeneration owners and other independent power producers have payment terms that are "locked-in" and do not provide for adequate recovery of the costs that will be incurred to achieve GHG emission reductions. The element of the cap-and-trade program

[3] CARB staff have indicated that this facility was, in fact, subject to a best-of-class calculation; however, the details of that calculation are confidential, and while we are not in a position to challenge CARB's statement, we are similarly not in a position to confirm it.

that allocates all of the allowances for the electric sector to the IOUs (and other utility distribution companies), who must then auction those allowances off, eliminates any incentive for the IOUs to come to the negotiating table to resolve how the allowance purchase costs will be recovered through these existing power sales contracts. Moreover, the recently adopted settlement among the IOUs and cogeneration interests does not help in this regard because the settlement pricing options assume that generators are able to meet the heat rate assumption used in the SB 1368 Emission Performance Standard proceedings, which, in turn, is tied to the performance of natural gas fired facilities. Consequently, solid fuel CHP/QF units, such as those owned by ACE and Rio Bravo, which were built in furtherance of California's 1980s energy, environmental and fuel diversity goals, will not be able to recoup the majority of their GHG-related compliance costs under the settlement for the duration of their existing contracts. We believe that the universe of facilities that would see major emissions profile improvement by changes to their primary fuel is relatively small and easily identifiable. Therefore, we urge CARB to develop and adopt a more realistic and pragmatic transition mechanism that will allow these units to transition away from high-carbon fuel sources to lower carbon-intensity fuels and technologies, including biomass.

In the revised cap-and-trade regulation released on July 25, 2011, CARB took an initial step toward addressing this issue by increasing the allocation of allowances to the electric sector from 89 million metric tons to 97.7 million metric tons so as to increase electric sector allocations to include emissions attributable to CHP/QF electric production. However, increasing the allowances available *for the IOUs* to provide at auction does nothing to incentivize the IOUs to negotiate PPA modifications to provide cost recovery for the QF facilities in recognition of their new GHG compliance burden. Moreover, for the same reasons discussed above with respect to the industrial assistance allocations, the increased allocation for CHP/QF electric production is likely too low to address the transition needs of solid fueled CHP/QF facilities. Because the cap-and-trade program involves intentional scarcity for allocations, there will remain a shortage of allowances during the transition period required for plants like ACE and Rio Bravo that have higher compliance burdens - not from relative inefficiencies in operations, but due to their primary fuels.

ACE and Rio Bravo acknowledge that the negotiated modification of existing contracts is the most desirable way to address these issues, as it will allow the counterparties to pursue resolution of a full range of transition and long-term compliance management issues. ACE and Rio Bravo also recognize that the California Public Utilities Commission ("CPUC"), who supervises and authorizes the utilities' energy procurement, is in the best position to provide oversight for such contract negotiations. Nevertheless, unless CARB provides the necessary incentives, directives, and/or mechanisms for the IOUs to enter into such negotiations, such negotiations will not likely to occur or be fruitful. In these circumstances, many CHP/QF facilities will be economically challenged and may be forced to shut down, likely to be replaced by less efficient simple-cycle gas turbine peaking power generation as this is the type of facility that can be sited and navigate regulatory hurdles in the shortest period of time. Moreover, the industrial sites they serve will likely pursue stand-alone processes to meet their thermal needs, since they are likely to have such needs reflected through the benchmark for their industrial activity. This also works against CARB's stated CHP goal in the AB 32 Scoping Plan.

To avoid this inefficient outcome that is contrary to the statutory GHG emission reduction goals, we urge CARB to modify its regulations to state the IOUs must provide the additional CHP/QF-related allowances to CHP/QF owners with whom they have ongoing power purchase agreements at no charge, unless and until the owners have been able to negotiate contract amendments that have been approved and adopted by the CPUC, as necessary. An alternative approach would be for CARB to retain the allowances for these CHP/QF units in a separate, transitional account, to be provided directly to CHP/QF owners who have existing power purchase agreements without pass-through provisions, at no charge to the CHP/QF facilities. Any surplus allowances retained by CARB could be sold at auction or retained in the GHG strategic reserve. With either of these modifications, the IOUs and CHP/QF owners can approach the negotiating table on a more level playing field, increasing the potential for successful negotiations that will help meet the goals of AB 32 to reduce GHG emissions and maintain criteria pollutant emission levels while preserving California's existing businesses and electric power to the grid.

In addition to addressing this issue of how to distribute the allowances, CARB should also modify its calculation of the allowances necessary for a realistic transition to the CHP/QF facilities that have served this State's energy and environmental objectives for so long by calculating the allowances based on the actual fuel used at the CHP/QF facilities, rather than on the basis of natural gas fuel and efficiency factors.

4. Transitional Assistance To Cogeneration Facilities For Conversion To Low Carbon Intensity Fuel Technologies is Beneficial to the State's Economy

The cap-and-trade regulation does not contain any provisions for transitional assistance or free allowances for facilities that plan to convert from existing high carbon content fuels or configurations to lower carbon intensity fuel technologies if financially feasible. In our three specific cases, ACE, Poso, and Jasmin are all solid fuel cogeneration facilities that provide steam to a steam host. The facilities were designed and built to provide a service to a local facility and to provide electricity to the California power grid. Without any mechanism in place to recover GHG reduction costs for these plants, the increased financial burden of paying for the GHG emission allowances, on top of paying for the design, permitting, and construction costs of new or modified facilities (which can take two to five years for project completion), are likely to substantially reduce the financial viability of the facilities. In that case, it is reasonably likely that the basic capital investment will be re-deployed to other areas of the country. This would result in closure of the existing facilities thereby causing economic hardship for the local communities that depend on meaningful industry jobs. To avoid this result, CARB should develop a transitional mechanism for high-carbon solid fueled facilities so that they can undertake the substantial investments necessary to change fuel types. Such a mechanism is entirely consistent with programmatic goals of CARB's AB 32 implementation given that the state's overarching policy is to achieve overall carbon emissions reductions by 2020 with minimal economic dislocations. Creating that type of pathway for this specific set of facilities will help maintain the jobs tied to the facilities, as well as new work opportunities associated with the required investments.

5. Mandating GHG Emission Reduction Projects in Response to the Energy Audits Raises Problems Similar To the Industrial Sector and Electric Sector Allowance Allocation Issues.

The original July 25, 2011 Notice for the cap-and-trade regulation reiterates that staff continues to evaluate the manner in which the Energy Audits required by regulation for many of California's largest emitting sources will be translated into specific, mandated emission reduction actions. Subsequently CARB indicated that this issue will be addressed later through a subsequent process. ACE is very concerned with the potential for mandated programs to carry the same problem for facilities with existing contracts as does the overall cap-and-trade program: i.e., facilities with existing standard QF contracts have no way to recover the costs of the mandated programs unless and until the industrial steam hosts and the IOUs agree to contract modifications and execute revised contracts with pass through cost language. Therefore, any implementation of mandated actions as a result of the Energy Audits must also address the need for some sort of specific direct assistance if the steam hosts and/or IOU remain unwilling or unable to enter into renegotiated contracts.

In addition, if the Energy Audits process ultimately leads to mandated emission reduction programs (and as noted in the following section, ACE does not believe that such mandates are consistent with the cap-and-trade program), the timing of the implementation of the mandated actions must be carefully coordinated with the timing of overall compliance with the cap-and-trade program to ensure that the owners of the facilities are not carrying an excessive compliance burden for mandatory allowance purchases plus mandated actions under the audit program. To avoid this result, particularly for facilities with the potential to change fuels and hence significantly modify their emissions profile, there should be a distinct regulatory mechanism that will support capital improvements that may require longer lead and permitting times.

6. The Costs of Mandated GHG Emission Reduction Projects In Response To The Energy Audits Will Compete with Capital Required to Comply With The Cap-And-Trade Program.

Under a well-designed cap-and-trade program, owners of emitting resources are able to evaluate the economics of investing in emission reducing operational modifications plus compliance costs against the economics of simply purchasing allowances for emissions under unchanged operations. It is this trade-off that leads to the most efficient and cost effective emission reduction decisions. When mandated programs are layered on top of a market based cap-and-trade approach, the potential for inefficient emission reductions is greatly increased, since finite capital resources must be expended towards achieving mandated emission reductions, leaving fewer resources available, or none left, to implement the most cost-efficient reductions or even keep the plants operating. While CARB staff acknowledged that implementing mandated actions as a result of the Energy Audit still required extensive additional evaluation and stakeholder input on how the criteria and economic thresholds for each mandated action would be determined, ACE fundamentally believes that any "one size fits all" approach will ultimately undermine the success of the cap-and-trade program, and should therefore be completely avoided.

In short, the Energy Audit began as a tool for CARB staff to assess the type of actions that CHP/QF and industrial facility owners might take to reduce emissions; transforming that data into mandated actions is an unwarranted interference in the market-based cap-and-trade program that will likely be counterproductive and could very likely lead to "leakage" in all industry sectors. Moreover, some of the most significant facility changes that can be undertaken will require significant time for evaluating, planning, designing as well as clear economic justification , company management approvals, permitting, all of which must be done prior to the actual construction and commencement. These tasks will take between 2 and 5 years depending on the complexity of the project and permit approvals. To allow for this timeline, CARB must provide regulation language for temporary and structured relief of the compliance obligation through this transition period. Absent a regulatory framework that encourages investment to transition facilities to lower carbon emissions or possible repower to low-carbon fuels, this onerous compliance obligation will result in serious economic dislocation or leakage, and harm to the impacted industries and the local communities, as well as job losses.

ACE and Rio Bravo appreciate this opportunity to provide these comments. We look forward to discussing our unique issues and transition plans with CARB staff. Should there be any questions regarding these comments, please contact Maggie Estrada, Environmental Director, West Region, Constellation Energy (949) 425-4756 (Maggie.Estrada@constellation.com), or Andrew Brown, Ellison, Schneider & Harris, LLP, (916) 447-2166 (abb@eslawfirm.com).